USER GUIDE

Thank you for buying your ROAD ANGEL

As our roads become busier, more congested and more regulated, staying alert to road and traffic conditions is a challenge to everyone. Even the most conscientious driver can have a momentary lapse of concentration that could easily lead to an accident or a fine and points.

ROAD ANGEL is specially designed to be a simple-to-use addition to any vehicle, to alert and warn you in advance of known danger areas.In the comprehensive ROAD ANGEL database are stored Police, Local Authority and Ministry of Transport designated danger spots,including accident blackspots and speed camera locations.Using the latest Global Positioning Satellite (GPS) technology, ROAD ANGEL compares your position with the known danger spot locations and gives you an audible and visual warning as you approach them.An accurate GPS speedometer in the display gives you time to adjust your driving to the approaching danger.

The safety of you and your passengers is our prime consideration, and we trust that for all the miles you drive, your ROAD ANGEL will enhance the safety and enjoyment of your journey. Join other ROAD ANGEL users in guarding your life and licence.

Dave Clark, Managing Director
Blackspot Interactive Ltd.

Note:The directors of Blackspot Interactive Ltd. sell ROAD ANGEL as a road safety enhancement device. Driving within the speed limits at all times and within the limitations of the road condition and your abilities is paramount. The directors of Blackspot Interactive Ltd.take no responsibility for the use of ROAD ANGEL for other purposes than those stipulated.

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Setting Up

1. Remove ROAD ANGEL from its packaging.

2. Place the non-slip mat into the locating clips on the base of the ROAD ANGEL.

3. Plug your choice of power lead into the back of the unit.

4. Plan the location of your ROAD ANGEL:
   - towards the centre of the dashboard in the driver's line of sight
   - with a **clear view of the sky** through the windscreen
   - where the power wire can be comfortably connected to the cigarette lighter socket (the unit may also be hardwired via a fused ignition live)
   - where it does not interfere with any vehicle controls

CAUTION: Do NOT place your unit on an airbag panel.

5. Park your vehicle outside with a clear view of the sky through your windscreen and clear of obstacles such as tall buildings and overhanging trees. Obstacles may delay or prevent satellite acquisition.

6. Plug the power lead into the cigarette lighter socket. If your socket is ignition wired you will need to turn the ignition to on. The unit will beep and then the display will light up red and self test all LCD segments. The display will then turn green with 3 dashes and MPH illuminated.

Note: The vehicle must be in the open air (not in a garage). The very first time the unit is switched on (cold start) it must acquire a minimum of 3 satellites to establish its position. THIS MAY TAKE UP TO 45 MINS. After approximately 4 hours use the internal battery will be charged sufficiently to memorise its position and subsequent starts will acquire satellites within 15-30 seconds.

7. When the unit has acquired satellites the 3 dashes change to 000MPH and it is ready for use.

8. To adjust any of the factory defined settings i.e. Volume, Range etc. scan through the options using the **MENU** button. Adjustments can be made using the **DELETE** button. When the desired setting is reached press the **STORE** button to save the changes.
The menu options are as follows:-

SPD	Alters the display between MPH and Km/h.
VOL	Changes the volume settings. No bars = muted, 1 bar = single beep alert, 2 – 5 bars = rising volume levels.
DST	Adjusts the warning range. 1 bar = 250 metres, 2 bars = 500 metres, 3 bars = 1000 metres.
SDS	Speed distance sensing – increases advanced warning as speed increases. No bars = no auto ranging, 5 bars = auto ranging.
SAT	Displays the amount of satellites in view (S – number of satellites).
GPS	Outputs GPS data for use with Auto-routing software programmes. No bars = switched off (for updates), 5 bars = data output switched on. NB. GPS should be switched off to enable updates.
DL9	Sets your ROAD ANGEL to dial nine.
MUTE	To Mute ROAD ANGEL when nearing a danger zone simply push the **MENU** button for one second.

Your ROAD ANGEL **is now ready for use.**

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ROAD ANGEL **Displays**

The custom high quality LCD display is designed to be easily visible by the driver in all conditions – bright sunlight to night-time driving. The display brightness is fixed.

1. Normal Display

The LCD will be green and the main display indicates MPH as measured by the GPS system. The speed is updated every second, and at constant speed is a highly accurate reading. When accelerating or decelerating quickly, the display will lag the actual speed by a small margin.

Along the top of the LCD display are the 4 danger zone designations:

Fixed – Permanent Gatso and Truvelo Sites.
Mobile – Temporary Gatso and Truvelo sites in roadworks and user defined laser sites.
Average – Average speed detection zones as monitored by the digital SPECS cameras.
Blackspot – Extreme danger zones where serious accidents have occurred.

2. Alert Display

When a stored location is approached the display will turn from green to red along with the type of hazard. The unit will beep slowly and the first bar of the proximity chart will illuminate. As the location is neared the bar chart counts up and the beeping increases in frequency. Your current speed remains displayed at all times.

There are a total of 5 display bars. When 5 are visible you are at the location of the danger point. The audible signal will sound rapidly and the red display will flash. As soon as the danger point is passed the unit will return to the green standby mode.

3. Multiple Alerts

Where many danger points are in close proximity, the ROAD ANGEL will remain in the red alert mode, and the bar chart will indicate how close you are to the next danger zone.

4. Average Speed Detection

Where the authorities have designated a long section of road for average speed detection ROAD ANGEL counts up as normal but remains red throughout the detection zone and beeps as a reminder every ten seconds.

ROAD ANGEL **Self-test**

To ensure you ROAD ANGEL is operating correctly you can run a simple self-test routine. Press the **DELETE** and **STORE** buttons together once to display the software version number and again quickly to run the self-test. Press the buttons when prompted to do so. After the sounder has alarmed the unit will return to standby mode.

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Adding and Deleting Danger Zones

CAUTION: Please only add or delete danger zones when it is safe to do so.

Deleting zones
Simply wait until your ROAD ANGEL alerts you to the required danger zone and then press the **DELETE** button. The location will be permanently erased from your ROAD ANGEL.

Adding new locations
You may add new locations to the FIXED, MOBILE, AVERAGE or BLACKSPOT areas of your database. This will be permanently stored in your unit and all information relevant to other ROAD ANGEL users will be verified by our Blackspot technicians next time you update (see page 9).

Storing new locations
When your vehicle is precisely alongside a new location carry out the following:

Press **STORE** once. The unit will beep and display locate and store the exact location.
Press **MENU** to choose between FIXED, MOBILE, AVERAGE or BLACKSPOT.
Press **STORE** to confirm your choice.

Quick store of a Fixed Camera:
STORE – **STORE**
Quick store of a Mobile Camera:
STORE – **MENU** – **STORE**
Quick store of a Blackspot:
STORE – **MENU** – **MENU** – **MENU** – **STORE**

Adding an Average Speed monitoring section or SPECS area

The use of SPECS cameras are becoming more frequent, both in residential areas and on Motorways. A photograph is taken of your vehicle at the 'start' point and then another a set distance further down the road. If your average speed is greater than the speed limit between these two cameras you are automatically prosecuted.

You can record these areas as follows. Only store an average speed monitoring area if you are absolutely sure of the start and finish points.

When passing underneath the first 'start' SPECS camera carry out the following:

Press **STORE** once to store the first camera position.
Press **MENU** twice to move the location type to AVERAGE.
Press **STORE** to confirm type – logging appears on the screen.
Now wait until you are underneath the finish camera
Press **STORE** to confirm the finish position.

The section of average speed detection is now stored.

Note: Blackspot Interactive Ltd. are constantly updating the central database of danger zones. You can be of great value to all ROAD ANGEL **users by noting new information accurately and updating to our central database. All general information will be verified by Blackspot Interactive Ltd. before adding it to the central file.**

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ROAD ANGEL **Database and Updating**

Your ROAD ANGEL is capable of storing up to 50,000 unique danger zones. Each unit is pre-programmed with the latest database on leaving the factory, so it is not necessary to update immediately.

However, road regulations are constantly changing and you will need to update your database from time to time. The recommended update frequency is monthly, but if you are a high mileage motorist, often driving on unfamiliar roads, you may wish to update your database more regularly.

ROAD ANGEL has been designed to be updated simply and efficiently.

You require the following:-

- Access to the internet or purchase the optional modem
- The ROAD ANGEL update CD (in your pack)
- The ROAD ANGEL unit
- The PC lead (in your pack)
- The ROAD ANGEL Power Supply

Step 1 – Load the PC software on to your computer (see instructions with CD).
Step 2 – Use the ROAD ANGEL power supply to power your ROAD ANGEL.
Step 3 – Plug the PC connector into the rear serial socket on your ROAD ANGEL.
Step 4 – Plug the serial PC lead in to the serial port on your computer.

Once the software is installed on your computer simply left click on the ROAD ANGEL icon and then right click the secondary icon in the bottom right corner of your screen. Clicking SYNCHRONISE initiates dial-up.

Note: If you do not have access to the internet or a computer, we can supply an optional modem for direct connection via a phone line. Please call 01327 855586 to order your modem, quoting your ROAD ANGEL **serial number (bottom of the** ROAD ANGEL**).**

Your purchase of ROAD ANGEL includes one year's subscription for the updates to the central database. It is important to return your registration and warranty card as this validates your guarantee and authorises your free subscription period (12 months).

Your subscription renewal will be £49.00 for one year or £79.00 for two years including VAT.

Help and Advice

ROAD ANGEL **fails to power up**

1. Check that the power lead is firmly plugged into the back of your ROAD ANGEL.

2. Check that the LED on the power lead is illuminated – if the LED is not illuminated check the internal fuse. If this is fine there is no power at your cigar lighter – rectify with a qualified auto-electrician.

Display lights up but does not acquire satellites (display remains at – – –)

1. Check your vehicle is in the open air, unit positioned with a clear view of the sky through the windscreen.

2. Is this the first time unit switched on? If yes, see cold start (page 3). Unit may take up to 45 minutes to acquire a good satellite signal on this first occasion.

3. Power down the unit and reboot.

Satellite signal drops out
(display goes from recording speed to – – – –)

1. May happen temporarily due to tunnels, tall buildings, bridges or overhanging trees cutting out the GPS signal. Signal should be reacquired in a few seconds.

2. Unit has moved so it can no longer have a clear view of the sky. Reposition.

3. Bad GPS coverage – very occasionally one or more satellites are out of sequence and the signal temporarily drops out. It should be restored within minutes.

No audible signal

1. Check volume level –

press **MENU** to move to Volume screen (Vol).
Press **DELETE** to adjust the volume (settings 1 – 5)
and **STORE** to store the desired volume setting.

If you are unable to obtain satisfactory performance from your ROAD ANGEL, please call our technical help line on 01327 855586.

ROAD ANGEL **and your Motorbike**

ROAD ANGEL can be fitted to any motorbike with 12 volt electrics. An optional ear-piece provides audible warning inside your helmet.

ROAD ANGEL is not waterproof. It is suggested that a tank bag or other waterproof holder be used.

Locating your ROAD ANGEL

ROAD ANGEL in its standard form with internal aerial must be located with an unobstructed view of the sky. The unit can be mounted under the seat or dashboard but an external or re-radiating aerial would be needed – please specify when ordering.

Note: Certain vehicles, in particular some modern Mercedes and Renault have UV screens that interfere with satellite acquisition. These vehicles require an external or re-radiating aerial in order to support ROAD ANGEL. **Some vehicles with heated front screens also suffer poor reception. Please call our helpline on 01327 855586.**

Protecting and Cleaning your ROAD ANGEL

Your unit is made from tough polycarbonate moulded plastic and is designed to withstand normal daily handling. Only clean with a dry or slightly damp cloth. Do not use solvents or a wet cloth. When cleaning the LCD display, avoid pressing too hard as this may damage the display. Avoid water or very damp conditions, extremes of heat (60c) or cold (-10c) and dropping the unit.

Guarantee

Your unit is guaranteed for one year from date of purchase from all defects that occur with normal use. If your unit fails to perform as specified in this manual, please return using registered post directly to Blackspot Interactive Ltd. with the following:

1. The problem you are encountering
2. Proof of purchase
3. Date of purchase
4. A contact telephone number and address

Note: Please remember to fill in your registration and guarantee card and post it FREEPOST to Blackspot Interactive Ltd. immediately after purchase.

Extended Guarantee

An option to extend the guarantee period for your ROAD ANGEL for a further 1 or 2 years is available. Please call 01327 855586 for details.

ROAD ANGEL Security

Due to the high number of thefts from vehicles, we suggest that on leaving your vehicle you remove ROAD ANGEL from view.

Each ROAD ANGEL has a unique serial number on the base. Should your unit be stolen or lost, please telephone Blackspot Interactive Ltd. on 01327 855586 to report the loss of your unit. The unit can then be disabled.

Insuring your ROAD ANGEL

Advise your insurance company that you have purchased a ROAD ANGEL and ask if any particular conditions apply regarding your premium and loss or theft from your vehicle.

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Background Information

Global Positioning Satellites (GPS)

Operational since 1990, 24 satellites orbit the earth at a height of 11,000 miles. At any given point on the globe, at least 4 satellites are in view at any one time. Using sophisticated aerials and triangulation techniques, units such as ROAD ANGEL are able to compute your exact position with great accuracy.

Speed cameras and blackspots
The 5 main danger zones are:

Gatso – Measure your speed and photograph the rear of your vehicle.

Truvelo – Measure your speed and photograph the front of the vehicle along with driver.

SPECS – Measure your average speed between two points and photograph the front of the vehicle.

Mobile Laser – Hand-held devices that record your speed in either direction.

Blackspot – A specific location where a high number of accidents have occurred e.g. a difficult junction.

ROAD ANGEL **at a Glance**

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